WO 2005/085347 PCT/JP2005/004168

## **CLAIMS**

1. A resin molded article obtained by performing a heat treatment to a resin composition comprising a liquid-crystalline polyester and an epoxy-group containing ethylene copolymer at a temperature lower than a flow-beginning temperature of said liquid-crystalline polyester, wherein the resin molded article has a smaller dielectric loss tangent than the resin molded article obtained from the resin composition without the heat treatment.

10

5

2. The resin molded article as set forth in claim 1, wherein the dielectric loss tangent of the resin molded article is 90% or less of the dielectric loss tangent of the resin molded article obtained from the resin composition without the heat treatment.

15

20

25

- 3. The resin molded article as set forth in claim 1, wherein the heat treatment is performed at a temperature between a lower limit temperature calculated by subtracting 120°C from the flow-beginning temperature of said liquid-crystalline polyester and an upper limit temperature calculated by subtracting 20°C from the flow-beginning temperature.
- 4. The resin molded article as set forth in claim 1, wherein a content of said epoxy-group containing ethylene copolymer is in a range of 0.1 to 25 parts by weight with respect to 100 parts by weight of said liquid-crystalline polyester.
- 5. The resin molded article as set forth in claim 1, wherein said epoxy-group containing ethylene copolymer contains 80 to 95 wt% of an ethylene unit and 5

to 15 wt% of at least one of an unsaturated-carboxylic acid glycidyl ester unit and an unsaturated glycidyl ether unit in the molecule thereof.

6. The resin molded article as set forth in claim 1, wherein said liquid-crystalline polyester contains 30 to 80 mol% of a repeating unit derived from 2-hydroxy-6-naphthoic acid, 10 to 35 mol% of a repeating unit derived from an aromatic diol, and 10 to 35 mol% of a repeating unit derived from an aromatic dicarboxylic acid.

10

7. The resin molded article as set froth in claim 1 having a metal film formed in a circuit pattern thereon.

15

20

8. A method of producing a resin molded article comprising the steps of: molding a resin composition comprising a liquid-crystalline polyester and an epoxy-group containing ethylene copolymer; and performing a heat treatment to a resultant molded article at a temperature lower than a flow-beginning temperature of said liquid-crystalline polyester, thereby obtaining the resin molded article having a smaller dielectric loss tangent than the resin molded article obtained from the resin composition without the heat treatment.

25

30

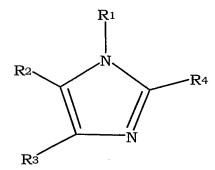
9. The method as set forth in claim 8, wherein the heat treatment is performed at a temperature between a lower limit temperature calculated by subtracting 120°C from the flow-beginning temperature of said liquid-crystalline polyester and an upper limit temperature calculated by subtracting 20°C from the flow-beginning temperature.

10. The method as set forth in claim 8, wherein said liquid-crystalline polyester is prepared by an ester-exchange and polycondensation reaction of at least one of an aromatic dicarboxylic acid and an aromatic hydroxycarboxylic acid, and an acylated compound prepared by acylating a phenolic hydroxyl group of at least one of an aromatic diol and an aromatic hydroxycarboxylic acid with a fatty acid anhydride

10

5

11. The method as set forth in claim 10, wherein the ester-exchange and polycondensation reaction is performed in the presence of an imidazole compound represented by the following chemical formula:



15

20

wherein, each of " $R_1$ " to " $R_4$ " is selected from hydrogen atom, alkyl group having a carbon number of 1 to 4, hydroxymethyl group, cyano group, cyanoalkyl group having a carbon number of 1 to 4, cyanoalkoxy group having a carbon number of 1 to 4, carboxyl group, amino group, aminoalkyl group having a carbon number of 1 to 4, aminoalkoxy group having a carbon number of 1 to 4, phenyl group, benzyl group, phenylpropyl group, and a formyl group.